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SOUTHERN FOREST PEST REPORTER

U. S. DEPARTMENT OF AGRICULTURE
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CONDITIONS IN BRIEF

Bark beetles, especially the southern pine beetle, continue to demand most of the effort of control organizations in the south. Epidemic populations continue to cause major losses in Alabama, Georgia, Mississippi, North Carolina, South Carolina and Texas. Major control efforts are now in progress or planned for these outbreaks, both on National Forest and on private lands in cooperation with the States. Current estimates show approximately 1,600,000 trees infested. Black turpentine beetle activity has generally decreased in the South. Exceptions occur in the naval stores areas of Georgia, Florida and Mississippi. Ips beetle activity is general. However, buildups are noticeable in areas of extreme drought. Pine sawflies, especially the red-headed pine sawfly, were common throughout the Region. In most cases outbreaks were small and damage slight. The balsam woolly aphid was detected for the first time on Roan Mountain, North Carolina.

Fomes annosus continues to be found in thinned slash, loblolly, shortleaf and white pine plantations. Black root rot, primarily a nursery disease, is killing young slash pine on a wide variety of sites in the sandhill areas of north Florida.



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STATUS OF FOREST INSECTS

SOUTHERN PINE BEETLE, Dendroctonus frontalis Zimm.

ALABAMA

The current southern pine beetle epidemic in Alabama is centered on the Shoal Creek District and to a lesser extent on the Talladega District of the Talladega National Forest. An aerial survey in September, 1962 revealed an estimated 30,000 infested trees existing on the Shoal Creek District. There were an estimated 20,000 infested trees on the Talladega District.

GEORGIA

The southern pine beetle continues at epidemic levels on National Forest and private lands in portions of north Georgia. Outbreaks on the Tallulah and Chattooga Districts of the Chattahoochee National Forest, despite control efforts, have increased beyond the capabilities of present control forces. With a "beefed up" control organization it is expected that 50,000 trees will be treated this fall and winter in the two Districts.

The Georgia Forestry Commission has completed a state-wide Aerial Detection Survey for southern pine beetle on state and private lands in Georgia. Hall County was flown in February; 75 additional north Georgia counties were surveyed in April and the remaining portion was completed in August. Upon completion of surveys in Hall County last February and the seriousness of the infestation having been determined, control measures were immediately started. Training schools were held. After completion of ground checks and biological evaluations, the southern pine beetle infestations were found to be the heaviest in Hall, Franklin, Hart, Elbert, Madison, Habersham, Bibb, Monroe, Upson and Talbot Counties.

The Georgia Forestry Commission reported on November 1 that southern pine beetle control crews were controlling newly infested areas in Harris, Heard, Meriwether and Troup counties. Beetle populations have been reduced below epidemic levels in Green, Hancock, Jasper, Jones, Putman, Wilkes and Taliaferro counties.

SOUTHERN PINE BEETLE (Cont'd)

Since mid-March the Georgia Forestry Commission has treated some 7,000 spots in 22 counties that involved the treating of 250,000 infested trees. These trees contained 2,000,000 board feet of saw timber and 4,775 cords of pulpwood. The Commission hopes to clean up the infestation before the spring broods emerge.

MISSISSIPPI

Southern pine beetle activity continues in southwestern Mississippi. An aerial survey of the Homochitto National Forest in July revealed that the number of beetle spots had increased from 14 to 61 and the number of trees per spot from 3.1 to 6.2 since April.

SOUTH CAROLINA

The southern pine beetle was the most destructive forest insect reported in the State of South Carolina during 1962. Outbreaks of southern pine beetle were detected over a 19-county area in the upper Piedmont section of South Carolina. Preliminary estimates indicate 346,000 infested trees in the 19 counties surveyed. Heaviest infestations occur in Fairfield, Lancaster, Newberry, Spartanburg, Union and York Counties.

Outbreaks of the southern pine beetle continued to occur on the General Pickens District of the South Carolina National Forests. Large scale control efforts have been in progress since 1959 and have prevented greater losses. Cooperative control projects were also started on adjacent private lands in Oconee, Pickens and Anderson Counties.

A small outbreak of southern pine beetle began in Berkeley County, South Carolina, following an ice storm in March 1962. The outbreak has now been controlled.

NORTH CAROLINA

A few spots have been reported in practically all of the upper Piedmont counties in North Carolina. One report was received from Transylvania County. The infestation may extend to other mountain counties in the Appalachians if this trend continues. Epidemic populations of the southern pine beetle are present in Davidson, Davie, Gaston, Mecklenburg, Rowan, Union and Yadkin Counties. An estimated 200,000 trees are infested.

SOUTHERN PINE BEETLE (Cont'd)

TEXAS

The southern pine beetle epidemic in east Texas apparently reached a peak during July. The size of the epidemic area had grown from 600 thousand acres at the end of 1961 to an estimated 4 1/2 million acres. Approximately 20,000 acres of timber had been killed. Aerial and ground observations during August showed a marked decline in populations. Possible reasons for the decline may be the heat wave with temperatures exceeding 100° F for several successive days, or heavy infestations of the beetles by mites. The Texas Forest Service is presently engaged in evaluating the southern pine beetle situation over the entire infested area in east Texas. Southern pine beetle population on the Texas National Forest is on a downward trend.

BLACK TURPENTINE BEETLE, Dendroctonus terebrans (Oliver)

GEORGIA FLORIDA

In logging areas of north Georgia, this insect can be considered at endemic levels. Late summer rains have tended to alleviate the drought conditions that existed through the winter and spring. This may be one reason why beetle activity is low. Because of this, control has not been re-activated on the Chattooga District.

In the naval stores areas of south Georgia and north Florida, black turpentine beetle populations are increasing in numbers. The increase has been the greatest since the drought of the 1950's.

Beetle populations on four naval stores sales on the Osceola National Forest warrant control. How much additional control is being conducted on private land is impossible to estimate at this time. Unless climatic and environmental factors change drastically this fall and winter, the uptrend is expected to continue.

MISSISSIPPI LOUISIANA

Black turpentine beetle populations have been at a relatively low level this year. However, some increase in activity has been reported from scattered areas during the summer.

BLACK TURPENTINE BEETLE (Cont'd)

Black turpentine beetle infestations were generally at a low level through the first half of this year. However, increased activity was noted on National Forest lands during July and August.

IPS ENGRAVER BEETLES

- FLORIDA There have been no reports of unusual ips activity in Florida, although scattered localized populations are still at higher than normal levels as a result of the damage from Hurricane Donna and recent wildfires.
- GEORGIA In Georgia, ips activity is scattered and localized. As a result of drought conditions, some mortality occurred in plantations and dense natural stands in the central section of the State. An evaluation conducted in May indicated a general decline in population vigor.
- NORTH &
SOUTH
CAROLINA Ips were common in trees attacked by southern pine beetle and black turpentine beetle and in trees injured by lightning or logging. Ips were also common along the southern boundary of the southern pine beetle outbreak in the Piedmont section of South Carolina and in the crowns of many Virginia and shortleaf pines infested with southern pine beetle on the General Pickens district of the South Carolina National Forests.
- LOUISIANA
MISSISSIPPI
ALABAMA
ARKANSAS Ips activity increased during the summer, and populations were very aggressive. Extreme drought conditions in many areas have contributed to the buildup. This activity is expected to decline with an increase in rainfall and cooler weather.
- TEXAS Ips beetles were found to be extremely abundant and very aggressive on the Texas National Forests. Ips attacks were found to precede southern pine beetle attacks by as much as two weeks in some areas.

PINE COLAPSIS, Maecolaspis pini (Barber)

FLORIDA

Needle feeding on seedling and sapling slash pine by adults was more widespread and intense this year than in the past several years. Peak feeding and damage occurred about June 18. The infestation extended from Bartow, Florida north to Savannah and west to Marianna, Florida.

PINE SAWFLIES, Neodiprion spp.

Pine sawflies, although not a serious problem, were more common in 1962 than in 1961.

LOUISIANA
ARKANSAS

The red-headed pine sawfly, Neodiprion lecontei (Fitch), has been active in Arkansas and Louisiana this year. One thousand acres of a pine plantation were sprayed by land-owners near Merryville, Louisiana in June.

TENNESSEE
SOUTH
CAROLINA

Defoliation of 3 and 4 year old loblolly pines by the red-headed pine sawfly, Neodiprion lecontei, was reported from several thousand acres in Lawrence County, Tennessee. In some cases defoliation caused up to 75% mortality. N. lecontei was also reported to defoliate pine in the vicinity of Newberry, South Carolina.

NORTH
CAROLINA

An outbreak of red-headed sawfly which occurred over 2,000 acres of loblolly pine plantations near Bolton, North Carolina in 1961 declined in 1962.

FLORIDA
GEORGIA

Scattered colonies of red-headed pine sawfly and several dark-headed species, including N. excitans, have been reported from Florida and Georgia. There is no immediate indication of a buildup.

NORTH
CAROLINA

The outbreak of Virginia pine sawfly, Neodiprion pratti pratti (Dyar.), continued to decline in North Carolina. Some defoliation was noticeable in this area.

TEXAS
MISSISSIPPI

An infestation of the black-headed sawfly, Neodiprion excitans, was reported from Polk County, Texas. An unidentified sawfly, possibly Neodiprion taedae linearis Ross, defoliated a small area of loblolly pine in Winston County, Mississippi, in early March.

BALSAM WOOLLY APHID, Chermes piceae (Ratz)

NORTH
CAROLINA

Fraser fir mortality continued at an ever-increasing rate in the Black Mountains of North Carolina due to infestations of the balsam woolly aphid. Infestations were detected on Roan Mountain and in Burke County, North Carolina.

Native stands of Fraser fir on Grandfather Mountain, Richland, Balsam Mountain, Blowing Rock and the Great Smoky Mountains National Park are apparently still free from aphid attack.

ELM SPANWORM, Ennomos subsignarius (Hbn.)

NORTH &
SOUTH
CAROLINA

The elm spanworm continued to spread northward and eastward in 1962. Some defoliation of hardwoods was observed for the first time in South Carolina and sections of the Great Smoky Mountains National Park in North Carolina. The heaviest damage occurred in Graham and Macon Counties, North Carolina. There is evidence that the infestation is beginning to break up in north Georgia and southeastern Tennessee.

There was a slight reduction in the total areas infested in 1962 compared to 1961. (Table 1)

Table 1 -- Elm Spanworm Defoliation in the southern Appalachians
by states during 1961 and 1962

Defoliation: Georgia : Tennessee : No. Carolina : So. Carolina: Total					
Thousands of Acres					
-1961-					
Light	573	66	434	0	1,073
Moderate	114	30	128	0	272
Heavy	6	25	156	0	187
Total	693	121	718	0	1,532
-1962-					
Light	509	46	632	22	1,209
Moderate	52	17	173	0	242
Heavy					
Total	561	63	805	22	1,451

Systema marginella (Coleoptera: Chrysomelidae)

FLORIDA Leaf feeding by the adults of this insect on pond cypress occurred over the entire peninsula of Florida and through the cypress ponds of south Georgia. Although the brown, scorched appearance of the infested trees caused much comment, control was not deemed necessary.

MISCELLANEOUS HARDWOOD DEFOLIATORS

FALL WEBWORM, Hyphantria cunea (Drury)

FLORIDA Pecan and hickory, primarily pecan groves, were heavily
GEORGIA defoliated by fall webworm in north Florida and south Georgia. Control on private land has been conducted by landowners. This insect is not considered a threat to forest stands in the area.

NORTH & Defoliation of hardwoods by the fall webworm was common
SOUTH throughout North Carolina and South Carolina. Feeding was
CAROLINA particularly heavy in Mitchell, Yancey, Avery, Ashe and Watauga Counties, North Carolina.

LOUISIANA This insect has also caused considerable defoliation in portions of Louisiana and adjacent states.

WALKINGSTICK

ARKANSAS An estimated 25,000 acres have been defoliated by a walking-
OKLAHOMA stick in the Ouachita Mountains in Arkansas and Oklahoma. Although black oaks have been the heaviest hit, white oak and other species have also been attacked.

STATUS OF FOREST DISEASES

FOMES ANNOSUS ROOT ROT, Fomes annosus (Fr.) Cke.

ALABAMA Fomes annosus root rot has probably caused more concern
ARKANSAS than any single tree disease in the Region. One reason,
LOUISIANA perhaps, is its wide spread occurrence. F. annosus has
TEXAS been encountered on seed production areas on the Bayou,
FLORIDA Pine, Sylamore, Magazine and Pleasant Hill Ranger Districts.

FOMES ANNOSUS ROOT ROT, *Fomes annosus* (Fr.) Cke. (Cont'd)

Ozark National Forest, Arkansas. It has also occurred on the Fourche, Poteau and Caddo Ranger Districts, Ouachita National Forest, Arkansas. It has been found on the Vernon, Caney and Catahoula Ranger Districts, Kisatchie National Forest, Louisiana. This disease has been observed on long-leaf pine seed production area on the Talladega Ranger District, Talladega National Forest, Alabama. New infections have been reported in Angelina, Bowie, Cass, Harrison and Marion Counties, Texas in slash pine plantations and in old stands of natural loblolly pine. Infections were recently observed in thinned slash and longleaf stands on the Withlacoochee State Forest in Florida.

TENNESSEE

Fomes annosus has been found killing valuable seed orchard trees on lands of the Bowaters Company in east Tennessee.

OAK WILT

TENNESSEE

Preliminary results from the oak wilt survey in Greene and Washington Counties, Tennessee, indicate that the incidence of the disease is approximately the same as in 1961. As of September 1, 1962, there were thirty-three new centers in Greene County and twenty-five in Washington County. The survey was completed in early September.

NORTH CAROLINA

The North Carolina oak wilt survey this summer shows a decrease both in number of active centers and number of infected trees. Here, as in Tennessee, the number of newly infected centers remains relatively high.

ARKANSAS

Results of the Arkansas oak wilt survey show an increase in the number of sites and number of trees located. It is believed that the increase is due to a more efficient ground survey rather than to an actual increase in the number of infected trees. Infected trees were confined to seven counties. As in previous years, most of the infections (495 of 559) were located in Sharp County. Approximately 9 million acres in the northern half of the state were covered in the survey.

BLACK ROOT ROT

FLORIDA

Black root rot, caused by a fungus complex of Sclerotium batiticola and Fusarium sp., is primarily a disease of nursery stock. The disease has recently been found on a wide variety of sites in the sandhill areas of north Florida. Mortality thus far has been restricted to young slash pine plantations on the drier sites.

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